

## **Demand Response: Four Options for Action, Four Mistakes to Avoid**

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My June essay, "D.C. Circuit Kills Demand Response Compensation: Now What?" offered ways to keep demand response traffic moving around [the court's decision](#) invalidating FERC Order 745. To recap: The court held that FERC has no power to order (or approve regional transmission organization tariffs requiring) buyers of energy in RTO-organized markets to compensate retail consumers for demand response. The Court's reasoning seemed to have two prongs: (1) FERC cannot order compensation to retail consumers for any product, because it has no jurisdiction over "retail markets"; and (2) FERC cannot order compensation for demand response, because demand response is not a FERC-jurisdictional product.

Thanks to many conversations since June, here are four more options for action. Credit for insights goes to my colleagues; blame for flaws lies with me. Following the four options are four mistakes to avoid.

### **Four Options for Action**

*Can FERC order compensation for demand response, if the demand response is sold by, and the compensation is received by, entities other than retail consumers?* The court condemned the compensation because it went to retail consumers. But the universe of possible sellers includes load-serving entities, and non-utility aggregators (provided the latter are not merely agents for retail consumers, but instead take economic risk by buying demand response from retail consumers and reselling into the RTO market). The option escapes the court's Scylla because the recipients of FERC-ordered compensation are not retail consumers. But this option also needs to avoid the court's Charybdis—the rejection of compensation for a non-FERC-jurisdictional product. See the next option.

*Can FERC more clearly characterize demand response as a component of FERC-jurisdictional transmission service?* The court viewed Order 745 as entering "retail markets" because it compensated retail consumers for foregoing consumption—a non-act that was non-FERC-jurisdictional. But if we treat the demand response product as FERC-jurisdictional, the problem goes away. Demand response can be a FERC-jurisdictional product if it provides an "ancillary service"—Order 888's subcategory of FERC-jurisdictional transmission service, created to recognize the system-stabilizing roles played by scheduling, system control and dispatch; reactive supply and voltage control; regulation and frequency response; energy imbalance; spinning reserve; and supplemental reserve. That was FERC's purpose in Order 719, requiring RTOs to allow demand response to participate in ancillary services markets (and to be compensated comparably to other ancillary services).

*Can an RTO (or other entity) set up a market for demand response outside of FERC jurisdiction?* What killed FERC Order 745 was that it was issued by FERC. What if the legal source for compensation was not a FERC order, but a master contract drawn up by the RTO, signed by buyers and sellers and administered by the RTO—all outside of FERC jurisdiction? RTOs can run hot dog stands outside FERC jurisdiction, because FERC has no jurisdiction over hot dogs. Some RTOs run markets for renewable energy credits—again, outside FERC jurisdiction—because FERC has no jurisdiction over RECs. Placing the demand response transactions outside FERC jurisdiction clears away the court's problem, completely. Everyone can participate—retail consumers, load-serving entities, independent aggregators, brokers, everyone.

That's the theory. Turning to the practical: Just because an RTO builds a hot dog stand doesn't mean anyone will come. Under Order 745, compensation flowed from buyers to sellers because demand response sellers were participating in the same markets from which load-serving entities were buying wholesale energy, i.e., FERC-jurisdictional markets. These load-serving entities will continue to buy energy from those FERC-jurisdictional markets, because they have to—that's how they buy energy on economic terms (unless they are self-generating or buying bilaterally). But if demand response is being sold in a different, non-FERC-jurisdictional market, we need a way to make LSEs visit those markets. For a possible way, see the next question.

Does the jurisdictional problem go away if demand response moves from the supply side to the demand side? Under Order 745, demand response providers received the FERC-ordered compensation because they were sellers. What if demand response moved to the buy side? In the FERC-jurisdictional wholesale energy markets, the buyers are mostly load-serving entities. An LSE that certified to the RTO its control of a verifiable quantity of demand response for a particular hour would see its demand for that hour reduced. The LSE's costs would go down—because it needed to buy less power, and because its lowered demand would lower the market-clearing price.

But how do we ensure that LSEs actually bring demand response to the party, in the maximum quantity consistent with cost-effectiveness? I see four possible solutions.

*First*, we could hope that each LSE participates voluntarily. But most LSEs have service territory monopolies, so they face no competitive pressure to lower their power costs by gathering demand response. And there is the separate problem of positive externalities: the lower clearing price resulting from one LSE's demand response benefits all LSEs, not just the contributing LSE. Fundamental microeconomics dictates that when an action causes positive externalities, the action experiences under-investment.

*Second*, the RTO could block an LSE from buying in RTO energy markets unless its demand level reflects cost-effective demand response. The rationale is rooted in the Federal Power Act: Wholesale generation prices will not be just and reasonable unless buyers' demand curves are disciplined by demand response. Some will mischaracterize this mandate as regulatory overreach. But remember that demand response causes positive externalities, which means market imperfection. Conversely, an LSE's failure to use demand response causes a negative externality—its demand raises the market price for everyone. The classic response to

market imperfection is regulatory intervention, calibrated to correct the imperfection. (Caution: FERC would not be ordering LSEs to engage in demand response; FERC has no jurisdiction to do so. LSEs are free not to participate in FERC-jurisdictional markets. But if they want to participate, their participation should not push prices above "just and reasonable" levels.)

*Third*, states could induce their LSEs to bring cost-effective demand response to the FERC-jurisdictional energy markets. Inducement can take several forms. A state (through commission or state statute) can order the LSEs to acquire demand response. Or the state commission can make explicit what is implicit: that a utility that fails to accommodate cost-effective demand response is failing its franchise obligation to serve at lowest feasible cost. The consequences for that failure are cost disallowance for imprudence, or replacement by a better performer. This third approach works for those states that have not introduced retail competition, because the local utility remains the sole supplier for its service territory. For the retail competition states, the state still could impose the demand response obligation on each competitive retail seller. That retail seller would either aggregate demand response itself, or contract with non-utility aggregators to do so.

The *fourth* solution is to combine the second and third solutions. FERC can require RTOs to amend their tariffs to condition LSEs' right to buy wholesale energy on their certifying that their demand is dampened by cost-effective demand response. The states can require each LSE to collect all cost-effective demand response in its service territory. Caution: "Collect" does not mean "control." Finding all cost-effective demand response requires competition among demand response aggregators. Demand response is not a natural monopoly product—one whose production costs are minimized only when the market has a single supplier. Allowing only LSEs to gather demand response converts a potentially competitive market into a monopsony market, depriving customers of the dynamic efficiencies and differentiated choices that minimize cost and maximize convenience. Just because the utility is the service territory's sole buyer of energy in the RTO market does not mean it should be the service territory's sole aggregator of demand response. To reiterate: The state should allow non-utility aggregators to compete to purchase retail customers' demand response; then require the local utility to reflect that demand response in the demand it signals to the RTO. In this way, non-utility aggregators, while not selling directly into the RTO market (because they are working on the buy side), are still able to earn the full profit that competition allows.

## **Four Mistakes to Avoid**

***Capacity vs. energy:*** Some argue the decision applies only to energy markets. Sorry. If FERC has no jurisdiction to order compensation to retail consumers for any product, and no jurisdiction to order compensation for demand response to any customer, it doesn't matter whether the market hosting the transaction is one for capacity or energy—the jurisdictional problem is the same. (But as noted above, the jurisdictional problem goes away if demand response can function as an "ancillary service," i.e., a transmission service.)

***Imputing ideology:*** Some have imputed to the D.C. Circuit panel majority an ideological, pro-pollution, pro-"deregulation" agenda. Nope. One might have preferred an opinion reflecting

a more expert understanding of regional electricity markets; one that relied less on imprecise adverbs like "directly" and "indirectly" (concerning effects on retail markets), one more willing to defer to FERC's statutory interpretation. But the opinion used the normal tools courts use to judge the lawfulness of agency actions. There was no ideology.

***Ignoring generators' pricing:*** Generators who are celebrating their court victory should be careful what they wish for. Many of them have "market pricing" authority—the FERC-granted right to sell capacity or energy at whatever price the market will bear. But that right is rooted in a premise: that market forces are pushing prices down to "just and reasonable" levels. If these market forces are insufficient because demand response is absent, generators can lose their market pricing authority. FERC, RTO market monitors, and states should be investigating.

***More appellate litigation:*** Appellate challenges to FERC decisions are a constant. But until recently, most have involved narrow questions, like whether FERC acted arbitrarily, ignored evidence, or failed to explain itself. We now are seeing frequent challenges to FERC's subject matter jurisdiction. The reason is obvious: Our 1935 statute is a poor fit for 2014 markets. If instead of brief-writing, appellate-arguing and conference-attending we could go into statute-revising, we could get to cost-effectiveness without judicial help.